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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,018	12/31/2001	E. David Neufeld	H052617.1132US0	8143

7590 01/18/2008
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EXAMINER

LI ZHUO H

ART UNIT	PAPER NUMBER
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2185

MAIL DATE	DELIVERY MODE
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01/18/2008

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID E. NEUFELD and JUDY A. NEUFELD

Appeal 2007-1737
Application 10/039,018¹
Technology Center 2100

Decided: January 18, 2008

Before KENNETH W. HAIRSTON, ALLEN R. MacDONALD, and
JAY P. LUCAS, *Administrative Patent Judges*.

LUCAS, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ Application filed December 31, 2001. The real party in interest is Hewlett Packard Development Co.

STATEMENT OF CASE

Appellants appeal from the final rejection of claims 1 to 19 and 28 to 31 under authority of 35 U.S.C. § 134. The Board of Patent Appeals and Interferences (BPAI) has jurisdiction under 35 U.S.C. § 6(b).

According to Appellants, their invention relates to a method and system for increasing the lifespan of read/write compact discs, and related electronic memory. In the words of the Appellants:

A file system technique of enhancing the life span of a read/write storage medium begins with identifying whether a file is a static file or a dynamic file. If the file is a static file, the file is migrated to a dynamic region of the storage medium, and if the file is a dynamic file, the file is migrated to a static region of the storage medium.

(Spec. 3, ¶ [0088]). Claim 1 is exemplary:

1. A method of enhancing a life span of a read/write storage medium, the method comprising the steps of:

identifying whether a file on a read/write storage medium is a static file or a dynamic file;

migrating the file to a dynamic region of the read/write storage medium if the file is a static file; and

migrating the file to a static region of the read/write storage medium if the file is a dynamic file.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Lofgren
Kriegsman

6,230,233 B1
6,480,893 B2

May 8, 2001
Nov. 12, 2002

Rejections:

Claims 1 to 19 and 28 to 31 stand rejected under 35 U.S.C. § 103(a) for being obvious over Kriegsman in view of Lofgren.

Groups of Claims:

Appellants identify the following groups of claims:

Group I: Claims 1, 2, 8 to 14, 16 to 18, and 28. Claim 1 is representative.

Group II: Claims 3 to 5, 7, 15, 19 and 30. Claim 3 is representative.

Group III: Claim 6

Appellants contend that the claimed subject matter is not rendered obvious by Kriegsman in combination with Lofgren, for failure to properly combine the references. The Examiner concluded that each of the three groups of claims is properly rejected.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Briefs and the Answer for their respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2004).²

We reverse the rejections.

² Appellants have not presented any substantive arguments directed separately to the patentability of the dependent claims or related claims in each group, except as will be noted in this opinion. In the absence of a separate argument with respect to those claims, they stand or fall with the representative independent claim. *See In re Young*, 927 F.2d 588, 590 (Fed. Cir. 1991).

ISSUE

The issue is whether Appellants have shown that the Examiner erred in rejecting the claims under 35 U.S.C. § 103(a). The issue turns on whether there is a legally sufficient justification for combining the disclosures of Kriegsman and Lofgren, and whether the combination of the references teaches the claimed subject matter.

FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Appellants have invented a method (and system) of more evenly using the various regions of a read/write storage medium by first analyzing and identifying whether files to be stored are static files or dynamic files. (Spec., page 5 top). Appellants identify the files by performing a count of file rewrite cycles, and comparing them to established thresholds (*Id.*). Files written often are considered dynamic files; files not written as often are identified as static files. Appellants then perform an analysis and identification of the storage medium, identifying those regions that have been heavily used in the past (dynamic regions) and those that have not been so used (static regions) (*Ibid.*, bottom). Appellants then migrate static files to “more worn or dynamic areas and dynamic files to less worn or static areas” (*Id.*).
2. The patent reference Kriegsman teaches a method for efficiently storing elements of a compound document, such as a web page, dividing some parts onto a standard user’s computer system, and other parts onto high

speed storage devices connected over a network by high speed computer links, such as a T1 line. (See Abstract.) Files kept on the primary computer are taught to be text data, and tags, and are called dynamic data files (col. 5, ll. 63 *et seq.*) “...whereas static data files 42 typically include non-text data, such as image data, animation data, video data, audio data, and computer programs” (*Id.*). The invention copies “those capacity-consuming static data files 42 to one or more secondary web servers 16 (which have higher capacity communications links, and then dynamically re-writes requested pages so that the embedded static data files are retrieved directly from the best or optimal web server each time” (col. 7, ll. 3-8).

3. The patent reference Lofgren teaches a method to extend the service lifetime of a read/write memory, most notably an EEPROM, by swapping data from much used memory banks to lesser used memory banks (col. 8, ll. 14 *et seq.*). The swap takes place either automatically on initialization of the computer system, or under control of a host computer whose function it is to perform this wear leveling when required (col. 7, l. 27). Cycle counts of each of the data storage blocks are maintained, to determine those blocks with high data usage, and to determine whether a leveling operation is warranted. (*Id.*) The process transfers blocks of data from maximum use memory banks to minimum use memory banks (col. 8, l. 15). It is noted that no analysis of the storage frequencies of the data itself takes place in this reference.

PRINCIPLES OF LAW

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. See *In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

References within the statutory terms of 35 U.S.C. § 103 qualify as prior art for an obviousness determination only when analogous to the claimed invention. *In re Clay*, 966 F.2d 656, 658 (Fed. Cir. 1992). Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved. *In re Deminski*, 796 F.2d 436, 442 (Fed. Cir. 1986); see also *In re Wood*, 599 F.2d 1032, 1036 (CCPA 1979) and *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). Furthermore,

"there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness' . . . however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

KSR Int'l v. Teleflex Inc., 127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

ANALYSIS

From our review of the administrative record, we find that Examiner has presented a prima facie case for the rejections of Appellants' claims under 35 U.S.C. §§ 101, 102, and 103. The prima facie case is presented on pages 4 to 9 of the Examiner's Answer.

In opposition, Appellants present two main arguments. The first argument, relevant to the claims of Group 1 above, addresses the issue of proper combination of references under 35 U.S.C. § 103. The second argument, relevant to the claims of Groups 2 and 3, addresses the issue of whether a feature of those claims is taught by the references.

As noted in the Findings of Fact, and from the claims, we note that Appellants' invention covers a double identification and migration. The files that are being recorded are analyzed and categorized as static or dynamic, with respect to how often they are recorded and re-recorded. Meanwhile, the regions of the storage medium are also being analyzed, to identify those regions that are being often changed (dynamic regions) and those regions that are not being used as much (static regions).

The Lofgren reference teaches extending the life of a memory device by wear leveling, as described in FF3. But, in Lofgren only the memory blocks are analyzed, with data files being transferred from the most heavily used memory blocks to the lesser used memory blocks. However, there is no mention in Lofgren of analyzing and identifying the files as static or dynamic. The Examiner recognizes this (Answer, page 5 top), and relies upon Kriegsmann for that teaching.

Kriegsman teaches analyzing the files associated with a web page for the purpose of efficiently storing and transferring the text, images, and other matter that constitute the page. It does not address wear leveling in a memory device. In Kriegsman, files are classified as static when they are transferred without changes (usually images or music), or dynamic when they are modified for each transfer (usually text or tags) (col. 1, l. 10). As mentioned in FF2 above, this reference, while using the same terms as the Appellants, is addressing a different field of endeavor (storing and transferring web pages vs. counteracting media wear) and focusing on a different problem (speed of communications). In addition, the Appellants use static and dynamic to refer to the number of times that the files are changed, requiring rewriting into storage. The Kriegsman reference refers to the number of times the data is modified for transfer for display, requiring processing by the primary computer.

We, thus, find that the Examiner erred in combining these references, and the combined teachings do not render the limitations obvious. In view of this finding concerning the base references, we need not consider the Appellants' arguments concerning Groups 2 or 3.

CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that Appellants have shown that the Examiner erred in rejecting claims 1 to 19 and 28 to 31.

DECISION

The Examiner's rejection of claims 1 to 19 and 28 to 31 is reversed.

REVERSED

clj

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